

A NEW SPECIES OF *DENDROBIUM* SW., SECTION *DENDROCORYNE*
(ORCHIDACEAE) FROM AUSTRALIA

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ABSTRACT

A new species of *Dendrobium* Sw. is described for the forthcoming orchid volume of the *Flora of Australia*.

KEY WORDS: *Dendrobium*, Queensland, Australia, Orchidaceae

INTRODUCTION

The genus *Dendrobium* in Australia comprises about 60 species distributed mainly in northeastern Queensland (Clements 1989). A new species which has affinities with *D. fleckeri* Rupp & C. White is described here as new.

Dendrobium finniganense D. Jones, *species nova*. TYPUS: AUSTRALIA. Queensland: Cook District: cultivated Australian National Botanic Gardens, ex Mt. Finnigan, L. Roberts s.n. (L. Lawler 66), 31 January 1992 (HOLOTYPE: CBG; Isotypus: BRI).

Species nova affinis *D. fleckeri* Rupp & C. White a qua floribus majoribus graveolentibus; pedunculo longiore; sepalo dorsali latiore; petalis elliptico-lanceolatis latioribus; et labello majore lobis lateralibus brevioribus minus acuminatis, differt.

Terrestrial or lithophyte forming extensive branched clumps with numerous aerial growths. Pseudobulbs 2-24 cm x 3-4 mm, linear-terete, attenuate, shallowly sulcate, pale green to yellow, swollen at base then narrowed, slightly widening just near middle; nodes 3-7. Leaves 1-3, apical, 5-8 cm x 1.6-2.0 cm, elliptical to elliptical lanceolate, dark green, thinly coriaceous, porrect,

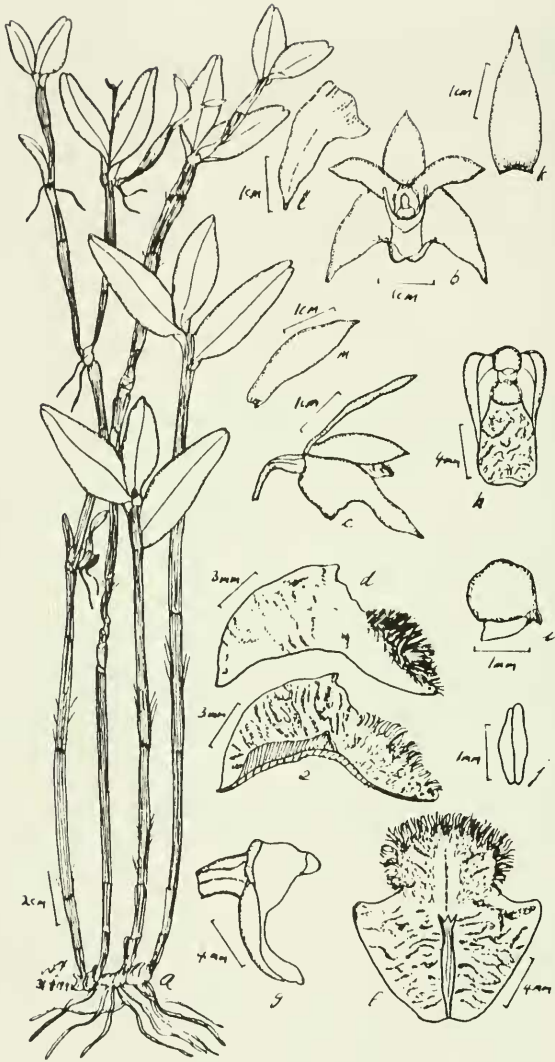


Figure 1. *Dendrobium finniganense*, Mt. Finnigan, L. Lawler 66; a. plant; b. flower from front; c. flower from side; d. labellum from side; e. longitudinal section of labellum; f. labellum from above flattened out; g. column from side; h. column from front; i. anther cap from side; j. two pollinia; k. dorsal sepal flattened out; l. lateral sepal flattened out; m. petal flattened out. All figures to indicated scale.

apex unequally emarginate. Inflorescence solitary, terminal, each bearing 1 or 2 flowers. Peduncle 3.0-4.5 cm long, erect. Floral bracts 3-5 mm x 1.5 mm, linear-ovate, acuminate, sheathing base of pedicel. Pedicel 10-14 mm long, expanding gradually into the ovary. Ovary 3-4 mm long, green. Flowers 26-34 mm across, cream to white, yellowish and purple marked near the centre, expanding widely, strongly fragrant. Dorsal sepal obliquely erect, 22-26 mm x 8-9 mm, ovate-lanceolate, thick and fleshy, tapered to an acute to acuminate apex, mainly cream to white, yellowish at base with fine purple striae. Lateral sepals 24-26 mm x 12-14 mm, lanceolate, broadest near base, thick and fleshy, saccate and connate in proximal ventral quarter, falcate, apex subacute, cream to white, yellowish at base with fine purple striae. Petals porrect or spreading, 20-22 mm x 4-5 mm, linear to linear oblanceolate, falcate, acute to acuminate, cream to white, yellowish at base. Labellum obliquely erect at base then curved through 60°, 13-15 mm x 12-13 mm when flattened, trilobed; lateral lobes erect, ca. 8 mm x 5 mm, more or less triangular, cream, irregularly and heavily barred with purple, margins entire; midlobe ca. 6 mm x 10 mm, more or less orbicular, broadly obtuse, margins and dorsal surface densely beset with transparent, glandular trichomes ca. 1 mm long, a few purple markings also present; callus of a single, narrow, raised, central yellow ridge restricted to the proximal half of the labellum, apex trilobed, three vague ridges extending along the midlobe nearly to the apex. Column ca. 4 mm long, projected forward from the end of the ovary. Column foot ca. 8 mm x 4.5 mm, curved, anterior surface heavily marked with purple. Anther ca. 2 mm x 1.2 mm, with a short, projecting, laciniate rostrum. Stigma ca. 2 mm across, obovate-rectangular, sunken. Pollinarium ca. 1.5 mm x 1 mm, ellipsoid, orange-yellow, waxy. Capsule not seen.

Specimens Examined: Thornton's Peak, December 1990, ANZAAS Expedition (CBG).

Distribution and Habitat: Restricted to northeastern Queensland where known with certainty from Mts. Finnigan, Pieter Botte (L. Roberts pers. comm.) and Thornton's Peak; possibly also occurring on adjacent peaks. This species grows as a terrestrial or lithophyte at high elevations (about 1100 m altitude) in open exposed sites among rocks and boulders.

Flowering Period: November to January.

Affinities: *Dendrobium finniganense* has affinities with both *D. adae* Bailey and *D. fleckeri*. It can be distinguished from *D. adae* by its much larger flowers, broader dorsal sepal, broader, triangular lateral lobes on the labellum and the densely hairy midlobe to the labellum. From *D. fleckeri* it can be distinguished by its larger, strongly scented white flowers on a longer peduncle, broader dorsal sepal, broader elliptical-lanceolate petals and a larger labellum with shorter, acuminate lateral lobes. Plants of *D. finniganense* grow larger than the other two species (a single clump may be more than 90 cm across and consist of more than sixty stems) and is also more prolific in the production

of aerial growths, resulting in a mass of aerals growing on aerals.

All three species occur on Mts. Finnigan and Pieter Botte and Thornton's Peak, but are separated by altitude and or habitat and hybrids are unknown (L. Lawler and L. Roberts pers. comm.). The new species occupies the mountain summits growing in open situations and, whereas *Dendrobium fleckeri* grows at the same altitude, it is found in shaded situations in rainforest. *Dendrobium adae* grows at lower altitudes than both of these species.

Notes: *Dendrobium finniganense* produces aerial growths copiously and colonises adjacent sites by this method of vegetative reproduction.

Conservation Status: *Dendrobium finniganense* is locally common, conserved in the Mt. Finnigan National Park and is not threatened.

Etymology: In reference to the type locality of Mt. Finnigan.

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